PIKES PEAK RADIO AMATEUR ASSOC.

Ø BEAT

COLO. SPRINGS, COLORADO

FEBRUARY 1977

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MEETING NOTICE: The Pikes Peak Radio Amateur Association will meet this month on February 9 at 7:30 pm in the Security Savings and Loan Building, at East Platte and Union Blvd. Any person interested in amateur radio is invited to attend. This meeting will be "Old Timers' Night." Come and see what amateur radio (and amateur radio operators) have been like in the past. And come prepared to be entertained, amazed, and impressed, as I'm sure we will be.

S W A P F E S T (Oh Boy!) February 29 (Sunday) Peterson Field 9 am (in the morning) til 2 pm (in the afternoon) Be prepared to buy gear, food, cakes (Yes, a B A K E S A L E), raffle tickets. (You can swap for gear -- not for food, cakes, raffle tickets.) It'll be in Hangar ?? (Find out at Main Gate.) Talk-In service on 16/76. If you're bringing something you'd like to put on a table, try to bring a table. But above all, bring yourself and see all that will be going on!!

JANUARY MINUTES: The meeting was called to order by President Mike Stansberry KØTER at 7:30 with a good sized crowd of 70 folks attending. Dick Schlueter WBØPNX, Treasurer, reported a $183.12 balance as of the end of December. Chuck Myers WAØZCS announced a Colorado Council of Amateur Radio Clubs meeting on January 29 in Denver, which he and Oak Stockton KØROL will be attending as our official representatives. WBØTAQ reported that the classes had gone well and new ones for beginners and upgraders would begin January 18. Mike TER put out a CQ for expertice to put a natural power station on the air for Field Day. (con'd on page 2)

P P R A A D I R E C T O R S

PRESIDENT	Mike Stansberry KØTER, 2732 E. Monument St.	475-8650
VICE-PRESIDENT	Lyle Rockefeller WBØMDI, 409 Locust Dr.	599-7890
SECRETARY	Dave Allen WBØTAQ, 821 N. Cascade	471-0642
TREASURER	Dick Schlueter WBØPNX, Box 38 Grn Mt Falls 80819	684-2153
Board Member	Bart Bartol WØPT, 2718 N. Prospect	473-8018
Board Member	Dick Cohen K6DBR/Ø, 4965 Brown Valley Lane	599-5645
Board Member	Dean Jaynes WAØPJH, 116 N. 24th St.	634-7097
Board Member	Ray Uberecken WØWYZ, 318 Kenwood Cir.	471-7134

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The PPRAA meets at 7:30 pm on the second Wednesday of each month in the Security Savings and Loan Building, East Platte at Union Blvd.

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JANUARY MINUTES con'd: Dick Cohen K6DBR reported on the coming swap fest on February 29. Talk-in on 16/76, bring your own tables if possible, and he's looking for people for food, clean-up, and other committees. Helen Bartol WØKJW is heading up a bake sale for the event. [And in you've ever tasted her baking, you may attend the swap fest with no intention of looking for radio gear.] Bart Hayhurst WAØYOH reported on the success of the Christmas Dinner. Bud Widmar WBØTIB presented a motion concerning the Club's relationship to the 16/76 repeater. That motion was tabled and was the subject of a meeting at Bart and Ellen's (WØPT AND WØKJW) the following Sunday.

Lastly, Bob Erdmann WØNGA presented an introduction to microprocessors--their basic building blocks, how these function, and the tremendous influence microprocessors are having on the electronics industry. If you don't know how to count in hexidecimal or what to do if an address bus rings your doorbell, find out from someone before Bob gives his next presentation in a series of three.

Dave Allen WBØTAQ, Secretary

OUR NEW CLASSES are going well. The upgrading class is well attended and in good hands with Mike Stansberry KØTER on the paddles Tuesday nights, and Ray Uberecken WØWYZ on the books Thursday nights. The downgrading class--I can't believe I said that--is going well with a small but very satisfactory attendance. I apologize for the poor publicity, but I didn't know what form the classes would take and hesitation kind of got the better of me.

Does anyone know what to call the classes? Beginning and advanced seems to leave out Techs, Generals, and Extras. Upgrading has a nasty counterpart. Maybe beginning and upgrading.

The classes have always served to produce new amateurs and club members. It is neat to see them now serving present hams and club members. Come and try them out, whether you want to upgrade or just clear the cobwebs from old memories of what a vacuum tube does. (con'd on next page)

CLASSES con'd: You'll find the atmosphere at the classes refreshing and stimulating (how about all the big words I'm using this issue), and more than anything, contagious, so be careful. I speak from personal experience. (7:30 pm Tuesdays and Thursdays, Rooms 118 and 119, North Jr High, 612 E. Yampa.)

Dave TAQ, Chief Downgrader

THE FCC is giving its field offices authority to issue temporary licenses to amateur radio operators who complete examinations for higher classifications. The action is effective March 1. The Temporary permit from the field offices will be valid for 90 days or until issuance of the permanent license, whichever comes first. [This probably means the FCC office in Denver will be as packed in March as it was in January when the fees were suspended. And I'm sorry this is such old news. The The FCC has been a bit difficult to keep up with lately.--Ed.]

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Mail or phone your add (free) to Dave Allen WBØTAQ, address and phone on page 2.

THE BOARD MET on January 10 (contrary to its policy of meeting the first Monday of the month) at Ray Uberecken's WØWYZ. Our CCARC dues were decided upon and authorized. If anyone has heard from Rick Simpson WØUZP please notify anyone. The Swap was discussed, as were other ways of making money for the club treasury. Project kits was one idea. Any others? Money in the treasury is not just "something we've gotta have" or "something we've gotta be raising all the time." It gets used, hopefully, to benefit all of us. And the more we use our heads and work on it, the more fun we can have raising it and putting it to use.

TRANSMITTER HUNTING EQUIPMENT AND TECHNIQUES

Because of the recent need to find a transmitter that was inadvertently left on the air (on 146.16), I have decided to write a series of articles for Zero Beat on transmitter hunting equipment and techniques. A group of well-equipped and well-trained hunters is a valuable asset to any ham community. This is especially true with the blossoming of "other" radio services.

I have been on perhaps 200 hunts and have developed my own personal concept of how to hunt. I will describe it to you. It will then be up to you to develop your own style. I believe that there are three things that make for a successful hunt. They are the right equipment, experience, and team work. Let me start with team work.

A good transmitter hunting crew should consist of three people--a driver, an electronics man, and a map man. The functions of each are simple. The driver's sole job is to drive the car and be aware of structural problems. He shouldn't drive under low hanging trees. It could tend to damage the beam. The electronics man handles the beam, the receiver, the attenuator and any other equipment developed to get a fix on the hidden transmitter. The map man plots the directions on maps which should include both street and topographical maps. He evaluates the data and determines the best and shortest route to the hidden transmitter. (con'd)

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TRANSMITTER HUNTING con'd

A good team should be able to locate a hidden transmitter in normal driving time plus 25%. That is, if it takes one hour to drive to the hidden transmitter location when you know where it is, it should take one hour and fifteen minutes when you don't know where it is.

Most of my hunting has been done at night. This requires additional special equipment--such as spotlights, reflective outer clothing, hot coffee, etc. Let's now quickly examine the type of equipment needed for "T" hunting. Hunting on FM is very similar to AM. The key equipment is a good directional antenna, a sensitive receiver with a clearly visible S-meter, and some method of keeping the signal below saturation level of the receiver. In AM hunting the receiver is normally continuously tunable. Thus it is easy to tune off the side of the signal to keep it below saturation of the receiver. In FM with fixed frequency receivers, this can not be simply done. An RF attenuator is needed in the antenna line for FM. The attenuator should be adjustable from 0 dB to about 100 dB in no greater than 20 dB steps. Smitty WBØLTV designed a unit that will work well. (See October 1976 Zero Beat for plans and more details.)

The receiver could be almost any unit that has or could be adapted to provide signal level indication. Even a Wilson with its small meter could be used.

I have found that a four element two meter beam provides the best compromise of antenna size, and directional capabilities when hunting on two meters. A home-brew two meter, four element beam can be built for about $6.00 if you buy everything.

Now a few words about the cops. You will look strange going down the road with a four element beam hanging out the window. So drive safely, dress conservatively, and don't smart answer the cop when he stops you. Tell him that you are an amateur radio operator and not a CB'er, that you are participating in an exercise or actual (tell the truth) radio direction finding event. The purpose of the exercise is to develop the capability to locate illegal or unauthorized transmitters, as well as emergency beacon transmitters from downed aircraft.

Finally, dig out those old AM receivers that can be tuned down to 121.5 MHz. Set them up for T hunting. When we get good at T hunting, let's let the appropriate people know we can help find downed aircraft.

Dick Cohen K6DBR

ABOUT 50 FOLKS showed up and took amateur tests in Pueblo on January 29. About ten, maybe more, were from the Springs. Don Middleton WØNIT and the whole Pueblo Club provided a good service, and even coffee and donuts.

THE FEBRUARY BOARD MEETING will be held at Pioneer Astro, 3410 N. Prospect at 7:30 on February 7. (Host is Dick Schlueter.) The meeting is open.

A SWAP TABLE will be available again at the February meeting of PPRAA. Bring anything to sell or swap. A Vibro marker will be stationed there for the ID marking of equipment. It's free and could get your stuff back in case of theft.

Lyle WBØMDI

THE ZERO BEAT has changed format a bit to hopefully speed it through the mails faster and with less casualties. And I even get a bit more room to scribble. So I now draw your attention to Page 6.

YE OLE EDITORIAL SPOT: I am still feeling narrow sighted about what goes into Zero Beat. It seems a bit slanted toward our classes, various meeting minutes, and the like. I didn't get to pester folks this month for aricles about the other areas our club is involved in. If you want to see more of anything in our newsletter, lay it on me, or point me toward someone who can. My phone has been much too quiet this month.

And that's about it for this time. Best of operating to all of you.

Dave Allen WBØTAQ

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SWAPFEST

WHERE: PETERSON AIR FORCE BASE
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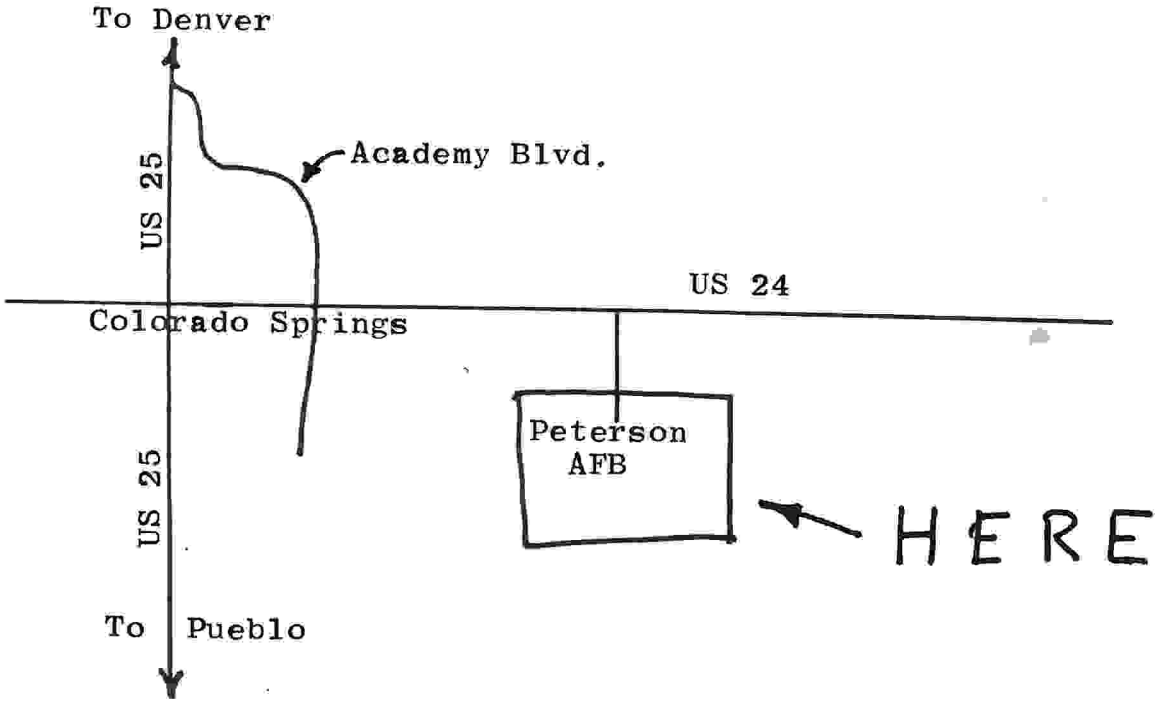
WHEN: SUNDAY, Feb 27, 1977

TIME: 9 AM to 2 PM

TALK-IN: 16/76

The Pikes Peak Radio Amateur Association is again holding a Swapfest for those people interested in Amateur Radio, Electronics and associated fields. There is no admission fee. Bring your own tables if you desire to sell or trade some goodies. The Swapfest Will be held in a hanger. Check with the Security Policeman on the main gate for instructions to the hanger.

For more information Contact members of the Pikes Peak ARC or Dick, K6DBR on 16/76 or 37/97; or come to the meeting of the Pikes Peak ARC on the second Wednesday of each month at 7:30 PM in the Security Savings & Loan Building, East Platte at Union Blvd. in Colorado Springs.